

IMPLEMENTATION OF RISK MANAGEMENT AND THE EFFECTS ON PERFORMANCE IMPROVEMENT IN PT KRAKATAU STEEL

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Abstract—Changes in the business environment is increasingly rapidly with increasing competition levels cause the appearance of a variety of business risks that could affect the company's performance. Efforts to secure the achievement of the goals and targets of the business, these risks need to be managed in a systematic, continuous and integrated. Application of the concept of risk management should be integrated with the company's strategy and performance management for all strategic plans, tactical plans and operational plans contain inherent risks that need to be managed properly. Through the Ministerial Regulation No. SOE. PER-01/MBU/2011, Minister of state mandates that all state-owned building and implementing risk management programs in an integrated corporation which is an integral part of the practice of good corporate governance. The final project is a review of the application of the concept of risk management in PT Krakatau Steel (Persero) Tbk., Evaluating its impact on corporate performance, analyze the causes of the problems and propose improvements necessary for the application of the concept of risk management had a positive impact on the effectiveness of the achievement of corporate goals. Based on the review and evaluation, it is known that the application of risk management in PT Krakatau Steel (Persero) Tbk. has not been implemented uniformly by all organizational units. In most of the organizational unit, found the lack of continuity between the risk management cycle. Process repeated measurements of risk level has not been run periodically, so the effectiveness of the risk mitigation measures that do not scalable. Risk identification process is not yet aligned with efforts to secure the achievement of predetermined performance targets. Therefore, the application of risk management to be integrated with the company's performance management system.

Keywords: PT Krakatau Steel, risk, risk level, risk mitigation, key performance indicators.

1. Introduction

PT. Krakatau Steel is a State Owned Enterprise which started its operation in 1977. It manufactures steel. Today, PT. Krakatau Steel (Persero) Tbk. has production capacity of 2,45 M ton per year. With 10 subsidiaries, PT. Krakatau Steel (Persero) Tbk has diversified its business into supporting business units such as downstream steel product (pipes, profile, etc), utilities (water, power plant), infrastructure (ports, industrial estates), technical services (construction, engineering), information technology and hospitals. On November 10th 2010, with the uncertainty in market condition, PT. Krakatau Steel (Persero) went public and did initial public offering at Indonesia stock market. In 2011, PT. Krakatau Steel (Persero) Tbk recorded Rp. 17,9 T revenues and Rp. 1.02 T net profit. The total asset of PT. Krakatau Steel group in 2011 is Rp. 21,5 T (source: 2011 Financial Report of PT. Krakatau Steel (Persero) Tbk).

PT. Krakatau Steel (Persero) Tbk. has committed to apply management system in compliance to Good Corporate Governance principles to support the company in achieving its goal and objectives and also maintaining good relationship with all stakeholders. In the fast changing business environment, companies are required to be able to identify the likelihood and impact of risks in order to better anticipate the risk so that it will not halt corporate operation for both short term and long term activities. Sales and production performance data from 2007 to 2011 did not show significant

improvement. In fact on average it shows a decreasing trend. This condition shows a contradictory condition with the objective of implementation of risk management.

2. Literature Review

Rowe (1997) defined risk as potential emerging unexpected consequence event of an activity. In line with the risk definition of Rowe (1997), Sim Siegel (2011, page 18) mentioned three fundamental aspects of risk, they are:

1. Risk is uncertainty.
2. Risk includes positive side of changing situation.
3. Risk is a deviation expected ideal condition.

“ERM is a process effected by an entity’s Board of Directors, management and other personnels, applied in strategy setting across the enterprise, designed to identify potential events that may affect the entity and manage risks to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives” (COSO – Committee of Sponsoring Organization of the Treadway Commission, 2004).

Risk Management is a process cycle of identification, analysis and quantification of responses to risk, which is performed continuously and incessantly as integral part of corporate management. Risk Management is an iterative process, which if it is systematically performed, that will result in continuous improvement in decision making and performance improvement process.

To be effective, risk management implementation shall involve all organization lines and be performed harmoniously with corporate business strategy. To perform that the corporate shall have: (i) clear business strategy, (ii) effective risk management framework, (iii) strong and adaptive-to-business environment.

Risk Management is not planned to eliminate risk of an activity at all, but more intended to build awareness of risks faced, positive or negative ones, and to help the stakeholders calculate risk and manage it efficiently. Chapman and Ward (1997) revealed the uses of risk management as follows:

- (a) Risk is defined earlier even before activities begin.
- (b) To support objective decision making process.
- (c) To improve business plan with more imaginative scenario (“What if”).
- (d) Definition and business structure are monitored objectively.
- (e) Alternative plan is made with response of risk consideration.
- (f) To imaginatively develop response alternative.
- (g) To build risk profile for next project improvement.

To manage risk more rationally, systematically and measurably, and to give use for decision making process, risk shall be managed through processes as follows:

1. Knowing and understanding faced risks.
2. Measuring risk level.
3. Deciding on responses or the follow up action.
4. Ensuring that decision about taken steps is still relevant to the development of faced situation.

3. Conceptual Framework

In ERM concept, risk is all conditions not suitable with expected condition, including downside and upside. To be effective, risk management implementation shall involve all organization lines and be performed harmoniously with corporate business strategy. To perform that the corporate shall have: (i) clear business strategy, (ii) effective risk management framework, (iii) strong and adaptive-to-business environment.

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awareness of risks faced, positive or negative ones, and to help the stakeholders calculate risk and manage it efficiently. ERM frame work is a structure that enables risk management process to be performed effectively.

Measuring risk level is performed by measuring event probability/likelihood and estimating the impact value when the risk really occurs. The measurement of probability and estimating material impact is performed in accordance with the following guidance.

PELUANG KEJADIAN	SKALA	KRITERIA
Sangat Besar	5	Frekuensi atau prosentase kejadiannya sangat tinggi yaitu lebih dari 80 %
Besar	4	Frekuensi atau prosentase kejadiannya tinggi yaitu > 60 % sampai dengan 80 %
Sedang	3	Frekuensi atau prosentase kejadiannya cukup yaitu > 40 % sampai dengan 60 %
Kecil	2	Frekuensi atau prosentase kejadiannya tidak terlalu tinggi yaitu > 20 % sampai dengan 40 %
Sangat Kecil	1	Frekuensi atau prosentase kejadiannya tidak signifikan yaitu sampai dengan 20 %

Figure 1. Probability of Risk Occures

DAMPAK RISIKO	SKALA	KRITERIA
Bencana	5	Mengakibatkan kerugian yang sangat besar di atas Rp 500 miliar
Sangat Merugikan	4	Mengakibatkan kerugian yang besar di atas Rp 100 miliar s.d Rp 500 miliar
Merugikan	3	Mengakibatkan kerugian di atas Rp 10 Miliar sampai dengan Rp 100 miliar
Tdk Terlalu Merugikan	2	Mengakibatkan kerugian yang tidak terlalu besar lebih dari 1 miliar s.d Rp 10 miliar
Tidak Signifikan	1	Mengakibatkan kerugian yang kecil dibawah Rp 1 miliar

Figure 2. Risk Impact

The measurement of risk level is performed based on the result of risk probability and impact measurement. Determining risk level is performed according to the following risk matrix.

PELUANG TERJADINYA RISIKO	DAMPAK RISIKO (Material dan Non Material)				
	1. Tidak Signifikan	2. Tdk Terlalu Merugikan	3. Merugikan	4. Sangat Merugikan	5. Bencana/ Malapetaka
5. Sangat Besar	Tinggi	Tinggi	Ekstrim	Ekstrim	Ekstrim
4. Besar	Moderat	Tinggi	Tinggi	Ekstrim	Ekstrim
3. Sedang	Rendah	Moderat	Tinggi	Ekstrim	Ekstrim
2. Kecil	Rendah	Rendah	Moderat	Tinggi	Ekstrim
1. Sangat Kecil	Rendah	Rendah	Moderat	Tinggi	Tinggi

Figure 3. Risk Matrix

According to risk level classification used in PT Krakatau Steel (Persero) Tbk., identified risk are categorized into four risk level with the score follows:

Table 1. Risk Level

NO	LIKELIHOOD	IMPACT	RISK LEVEL	SCORE
1.	Very Big - 5	Loss - 3	Extreme - 15	4
	Very Big - 5	High Loss - 4	Extreme - 20	
	Very Big - 5	Disaster - 5	Extreme - 25	
	Big - 4	High Loss - 4	Extreme - 16	
	Big - 4	Disaster - 5	Extreme - 20	
	Moderate - 3	High Loss - 4	Extreme - 12	
	Moderate - 3	Disaster - 5	Extreme - 15	
	Small - 2	Disaster - 5	Extreme - 10	
2.	Very Big - 5	Unsignificat - 1	High - 5	3
	Very Big - 5	Low Loss - 2	High - 10	
	Big - 4	Low Loss - 2	High - 8	
	Big - 4	Loss - 3	High - 12	
	Moderate - 3	Loss - 3	High - 9	
	Small - 2	High Loss - 4	High - 8	
	Very Small - 1	High Loss - 4	High - 4	
	Very Small - 1	Disaster - 5	High - 5	
3.	Big - 4	Unsignificat - 1	Moderate - 4	2
	Moderate - 3	Unsignificat - 1	Moderate - 3	
	Small - 2	Loss - 3	Moderate - 6	
	Very Small - 1	Loss - 3	Moderate - 3	
4.	Moderate - 3	Unsignificat - 1	Low - 3	1
	Small - 2	Unsignificat - 1	Low - 2	
	Very Small - 1	Unsignificat - 1	Low - 1	
	Small - 2	Low Loss - 2	Low - 4	
	Very Small - 1	Low Loss - 2	Low - 2	

The action plan of risk response and mitigation is arranged according to priority based on risk level and cost effectivity and efficiency consideration. Yet in the implementation, not all mitigation plan having been arranged can completely be realized, so that it impacts on performance target achievement set. For performing that, estimate problem solving rate of risk mitigation plan has been arranged as follows:

Table 2. Realization of Mitigation Plan

NO	MITIGATION PLAN STEPS	% Realization
1.	Risk Mitigation Plan is performed as planned by all related work units.	100
2.	Most of related work units have performed Risk Mitigation Plan as planned.	$90 \leq x < 100$
3.	Some related work units have performed Risk Mitigation Plan as planned.	$75 \leq x < 90$
4.	Only a few related work units have performed Risk Mitigation Plan as planned.	$50 \leq x < 75$
5.	Risk Mitigation Plan is only an opinion and never return in work plan documents.	$x < 50$

According to Work Instruction about Pelaporan Pencapaian Sasaran Kerja Unit No. PER/3/PK/001, corporate performance realization is a target achievement realization percentage realisasi having been set with maximum 120% performance achievement number. If the achievement of realization is far above the set target, the maximum achievement number reported will be 120%. If the achievement number is far below the set target, the minimum achievement number reported will be 0%. Risk mitigation solution realization having been arranged is a multiplication of risk level and mitigation solution realization performed. Extreme risk level having for score becomes relative reference to calculation of risk mitigation solution, so that risk mitigation solution realization can be compared.

Example :

- Risk Level = 3

- Mitigation solution realization = 80 %

Risk mitigation solution based on risk level = $3 \times 80 \% \times 4/3 = 320\%$

To examine relation between variables involved, then correlation test will be used. The correlation test is not able to get the causing variable and effected variable, so that linear regression is needed to know the effect level of independent and dependent variables. The analysis used is Simole Linear Regression Analysis in which risk mitigation realization is independent variable and KPI achievement is dependent variable.

In every fiscal year end, all work unit is obliged to plan and set Objectives and Work Plan (SRK) for the next year. SRK is set by level, by elaborating its superior work unit (top-down) The elaboration of SRK is carried out based on Annual Corporate Budgetary and Work Plan approved by Board of Directors, Commissioners and Share holders. According to current procedure of Corporate Annual Planning RKAP includes minimum these subjects:

1. Corporate Work Plan, contains : mission and vision, objectives, goals, strategy, corporate policy and activities program.
2. Corporate Budgetary;
3. Corporate Main Financial Projection.
4. Subsidiary Main Financial Projection
5. Other subjects that need decision of shareholder general meeting

KPM and KPI data and KPI achievement from 2009-2011 being analyzed are actual data taken from corporate internal source. Corporate Risk Profile data were also collected from PT Krakatau Steel (Persero), Tbk.'s Risk Management Information System Data Base during 2009 until 2012. The use of actual data in analysis is expected to give more accurate analysis, representing the real condition

happening in the corporate. Therefore, recommendation or improvement suggestion given are expected to be concrete alternative solution for actual problem faced by the corporate.

According to Work Instruction Unit Objectives Achievement Report No. PER/3/PK/001, corporate performance realization is percentage of the set target and the maximum realization is 120% of the target. If the achievement of realization is far above the set target, the maximum achievement number reported will be 120%. On the other hand, if the achievement number is far below the set target, the minimum achievement number reported will be 0%.

4. Analysis of Business Situation

Bord of Directors of PT Krakatau Steel (Persero) through its decree No. 06/C/DU-KS/Kpts/2007 declares the Enterprise Risk Management (ERM) implementation. Such implementation includes activities as follows:

- a. Performing risk identification in every corporate business activity.
- b. Performing risk analysis by measuring
- c. Performing risk analysis by measuring impact and probability (likelihood) of risk events and comprehensive risk assessment.
- d. Performing risk plan and control that may disturb significantly corporate business activities.
- e. Monitoring risk control activities continuously and successively.
- f. Performing communication process and report of every risk management activity

According to sales and production data from 2007-2011 there was a consistent sales and production decrease. Corporate leaders, especially, need to find out the root cause of problem to be able to find the solution, so that similar problem will not happen in the future. According to data about and analysis of corporate performance and risk management implementation during 2009-2011 there was a disharmony between some business function work program and faced business risks. It had an effect on work program effectivity in achieving performance target having been set. Some business function work program were not risk business responses or mitigation faced. On the other hand, business function, risk mitigation step was not in harmony with the effort to secure performance target having been set. It took place because from risk identification process until risk mitigation planning, risk mitigation plan was carried out not as an effort to secure performance target having been determined. Such condition happened because until 2011 risk management implementation had yet been integrated with corporate management system. With its experience in steel industry field, the company should have anticipated and mitigated generic business risks. Had the risk mitigating and anticipating steps performed consistently and involved all linked work units, corporate would have not had such continuous performance decrease as happened during 2007-2011.

5. Conclusion

From the coefficient table, significant value (0.00) is smaller than 0.05, which means Realization of Risk Mitigation, and Achievement of KPI is significantly correlated at the level of 0.05. (H_0 (Realization of Risk Mitigation does not affect Achievement of KPI) is rejected and H_a (Realization of Risk Mitigation affects Achievement of KPI) is accepted).

Table 3. Statistic Description of KPI Achievement and Realization of Risk Mitigation

	Mean	Deviation Std.	N
Acievement of KPI	90.94	27.83	47
Realization of Risk Mitigation	338.66	25.77	47

Achievement of KPI is positively and significantly related to Realization of Risk Mitigation with the correlation value amount to 0.611. Based on The magnitude of the correlation coefficient criterion, independent variable and dependent variable are strongly linear related. It is supported by probability value amount to $0.000 < 0.05$ (sig. (1-tailed)).

From the analysis, it is found that there is a positive correlation between risk mitigation processes with the achievement of the performance with a correlation value 0.611. Based on the magnitude of the correlation coefficient criterion, the correlation values indicate that the independent variable and the dependent variable are strongly correlated in a linear relation. This suggests that programs of business risk mitigation, which arise, will determine the achievement of the performance. The higher level of realization of risk mitigation, the achievement of the performance will be higher. Conversely, the lower the level of realization of risk mitigation plans, the achievement of the performance will be lower. The company has not defined generic risks of the core business process. Preparation and adoption of the generic risks are necessary to recognize the potential of the main problems that can threaten the survival of the company's business and to perform the anticipation steps necessary in order to avoid loss due to such risks. Periodically, companies should measure the level of the generic risk as well as to monitor the effectiveness of mitigation program, which is performed. Risk identification process has not been fully made to respond the business risks that are directly related to the effort of ensuring the achievement of the company's key performance indicator (Key Performance Indicators) that has been established. This is apparent from the indentified risks, which are not directly related to the efforts of securing the achievement of key performance indicators that have been established. Low levels of performance achievements, it happens because the working program is not based on the business risks faced by the company. There are unconformity between the working program and the risk mitigation plan so that the achievement of KPI targets are not integrated with risk mitigation program faced by the company.

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